

ABSTRACT

A method of catalysts reduction using non-thermal plasma according to the present invention is characterized to reduce catalysts containing metal compounds by bringing them into contact with hydrogen-containing gas under a non-thermal plasma state.

5 In the method of catalysts reduction using non-thermal plasma according to the present invention, said non-thermal plasma is generated by dielectric barrier discharge.

In the method of catalysts reduction using non-thermal plasma according to the present invention, the plasma energy that is required to vary depending on the types of metals is regulated by the magnitude of power via voltage regulation.

10 In the method of catalysts reduction using non-thermal plasma according to the present invention, said reduction method is conducted in conjunction with existing methods of gaseous hydrogen reduction by heating, electrochemical reduction methods, or methods of reduction by adding organic or inorganic reducing agents.